

ABSTRACT FOR 62ND IAC

NASA as a convener: government, academic and industry collaborations through the
NASA Human Health and Performance Center

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On October 18, 2010, the NASA Human Health and Performance center (NHHPC) was opened to enable collaboration among government, academic and industry members. Membership rapidly grew to 60 members (<http://nhhpc.nasa.gov>) and members began identifying collaborative projects as detailed below. In addition, a first workshop in open collaboration and innovation was conducted on January 19, 2011 by the NHHPC resulting in additional challenges and projects for further development.

This first workshop was a result of the SLSD successes in running open innovation challenges over the past two years. In 2008, the NASA Johnson Space Center, Space Life Sciences Directorate (SLSD) began pilot projects in open innovation (crowd sourcing) to determine if these new internet-based platforms could indeed find solutions to difficult technical problems. From 2008 to 2010, the SLSD issued 34 challenges, 14 externally and 20 internally. The 14 external challenges were conducted through three different vendors: InnoCentive, Yet2.com and TopCoder. The 20 internal challenges were conducted using the InnoCentive platform, customized to NASA use, and promoted as NASA@Work. The results from the 34 challenges involved not only technical solutions that were reported previously at the 61st IAC, but also the formation of new collaborative relationships. For example, the TopCoder pilot was expanded by the NASA Space Operations Mission Directorate to the NASA Tournament Lab in collaboration with Harvard Business School and TopCoder.

Building on these initial successes, the NHHPC workshop in January of 2011, and ongoing NHHPC member discussions, several important collaborations are in development:

- Space Act Agreement between NASA and GE for collaborative projects
- NASA and academia for a Visual Impairment / Intracranial Hypertension summit (February 2011)
- NASA and the DoD through the Defense Venture Catalyst Initiative (DeVenCI) for a technical needs workshop (June 2011)
- NASA and the San Diego Zoo in Biomimicry
- NASA and the FAA Center of Excellence for Commercial Space Flight for collaborative projects
- NASA and the FDA concerning automatic external defibrillators
- NASA and Tufts University for an education pilot

These and other collaborations will be detailed in the paper demonstrating that a government-sponsored convening entity (the NHHPC) can facilitate industry, academic, and non-profit collaborations for products of mutual benefit.